



2123/ IAW

Patent

Docket No.: CYPR-CD01208

Information Disclosure Statement Transmittal

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|---|----------|---|--------------------------|
| I hereby certify that this transmittal of the below described document is being deposited with the United States Postal Service in an envelope bearing First Class Postage and addressed to the Commissioner of Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date of deposit. | | | |
| Date of Deposit: | 10/17/05 | Name of Person Making the Deposit: | KATHERINE RINALDI |
| | | Signature of the Person Making the Deposit: | <i>Katherine Rinaldi</i> |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Craig Nemecek

Application No.: 09/989,777

Group Art Unit:

Filed: 11/19/01

Examiner:

Title: SLEEP AND STALL IN AN IN-CIRCUIT EMULATION SYSTEM

Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450
Sir:

Information Disclosure Statement Transmittal

Transmitted herewith is the following:

- ☒ Information Disclosure statement and late filing fee of \$180.00
☒ Form 1449
☒ Other: REFERENCE

| Fee Calculation (for other than a small entity) | | | | |
|---|--|--|----------|-----------------|
| Fee Items | | | Fee Rate | Total |
| Petition for Extension of Time (fee calculated elsewhere) | | | \$.00 | \$0.00 |
| Information Disclosure Statement, late filing | | | \$180.00 | \$180.00 |
| Other: | | | | \$0.00 |
| Total Fees | | | | \$180.00 |

PAYMENT OF FEES

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A duplicate copy of this authorization is enclosed.
 - ☒ A check in the amount of \$180.00
 - ☐ Charge any fees required or credit any overpayments associated with this filing to Deposit Account No.: 23-0085.

Please direct all correspondence concerning the above-identified application to the following address:

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Date: _____

10/17/05

By: _____



Kevin A. Brown

Reg. No. 56,303



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: CYPR-CD01208.....

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Information Disclosure Statement Submitted Pursuant to 37 C.F.R. 1.97(b)

The citations referenced herein, copies attached, may be material to the examination of the above-identified application and are, therefore, submitted in compliance with the duty of disclosure as defined in 37 C.F.R. 1.56. The Examiner is requested to make these citations of official record in the application.

This Information Disclosure Statement submitted in accordance with 37 C.F.R. 1.97(b) is not to be construed as a representation that a search has been made, that additional items material to the examination of this application do not exist, or that any one or more of these citations constitute prior art under 35 U.S.C. 102.

The Examiner's attention is respectfully directed to the following U.S. Patents:

| <u>Pat. No.</u> | <u>Pat. Title</u> | <u>Grant Date</u> |
|-----------------|--|-------------------|
| 6,144,327 | PROGRAMMABLE INTERCONNECTED PROGRAMMABLE DEVICES | 11/07/00 |
| 5,202,687 | ANALOG TO DIGITAL CONVERTER | 04/13/93 |
| 6,016,554 | METHOD FOR EVENT-RELATED FUNCTIONAL TESTING OF A MICROPROCESSOR | 01/18/00 |
| 5,978,584 | DEBUGGING APPARATUS FOR DEBUGGING A PROGRAM BY CHANGING HARDWARE ENVIRONMENTS WITHOUT CHANGING PROGRAM OPERATION STATE | 11/02/99 |
| 6,356,862 | HARDWARE AND SOFTWARE CO-VERIFICATION EMPLOYING DEFERRED SYNCHRONIZATION | 03/12/02 |
| 6,058,263 | INTERFACE HARDWARE DESIGN USING INTERNAL AND EXTERNAL INTERFACES | 05/02/00 |
| 5,999,725 | METHOD AND APPARATUS TRACING AN NODE OF AN EMULATION | 12/07/99 |
| 6,289,300 | INTEGRATED CIRCUIT WITH EMBEDDED EMULATOR AND EMULATION SYSTEM FOR USE WITH SUCH AN INTEGRATED CIRCUIT | 09/11/01 |
| 6,366,878 | CIRCUIT ARRANGEMENT FOR IN-CIRCUIT EMULATION OF A MICROCONTROLLER | 04/02/02 |
| 6,298,320 | SYSTEM AND METHOD FOR TESTING AN EMBEDDED MICROPROCESSOR SYSTEM CONTAINING PHYSICAL AND/OR SIMULATED HARDWARE | 10/02/01 |
| 5,889,988 | DEBUGGER FOR DEBUGGING TASKS IN AN OPERATING SYSTEM WITH VIRTUAL DEVICES DRIVER | 03/30/99 |
| 6,487,700 | SEMICONDUCTOR DEVICE SIMULATING APPARATUS AND SEMI-CONDUCTOR TEST PROGRAM DEBUGGING APPARATUS USING IT | 11/26/02 |

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| 5,559,996 | LEVEL CONVERTER INCLUDING WAVE-SHAPING CIRCUIT AND EMULATOR MICROCOMPUTER INCORPORATING THE LEVEL CONVERTER | 09/24/96 |
| 6,223,272 | TEST VECTOR VERIFICATION SYSTEM | 04/24/01 |
| 5,964,893 | DATA PROCESSING SYSTEM FOR PERFORMING A TRACE FUNCTION AND METHOD THEREFOR | 10/12/99 |
| 6,107,826 | INTERCONNECT STRUCTURE FOR FPGA WITH CONFGURABLE DELAY LOCKED LOOP | 08/22/00 |
| 6,032,268 | PROCESSOR CONDITION SENSING CIRCUITS, SYSTEMS AND METHODS | 02/29/00 |
| 5,805,792 | EMULATION DEVICES, SYSTEMS, AND METHODS | 09/08/98 |
| 5,590,354 | MICROCONTROLLER PROVIDED WITH HARDWARE FOR SUPPORTING DEBUGGING AS BASED ON BOUNDARY SCAN STANDARD TYPE EXTENSIONS | 12/31/96 |
| 6,161,199 | NON-INTRUSIVE IN-SYSTEM DEBUGGING FOR A MICROCONTROLLER WITH IN-SYSTEM PROGRAMMING CAPABILITIES USING IN-SYSTEM DEBUGGING CIRCUITRY AND PROGRAM EMBEDDED IN-SYSTEM DEBUGGING COMMANDS | 12/12/00 |
| 6,564,179 | DSP EMULATING A MICRCONTROLLER | 05/13/03 |
| 5,587,957 | CIRCUIT FOR SHARING A MEMORY OF A MICROCONTROLLER WITH AN EXTERNAL DEVICE | 12/24/96 |
| 6,385,742 | MICROPROCESSOR DEBUGGING MECHANISM EMPLOYING SCAN INTERFACE | 05/07/02 |
| 5,546,562 | METHOD AND APPARATUS TO EMULATE VLSI CIRCUITS WITHIN A LOGIC SIMULATOR | 08/13/96 |
| 6,718,294 | SYSTEM AND METHOD FOR SYNCHRONIZED CONTROL OF SYSTEM SIMULATORS WITH MUTIPLE PROCESSOR CORES | 04/06/04 |
| 5,371,878 | SYSTEM FOR ANALYSIS OF EMBEDDED COMPUTER SYSTEMS | 12/06/94 |
| 5,321,828 | HIGH SPEED MICROCOMPUTER IN-CIRCUIT EMULATOR | 06/14/94 |
| 5,752,013 | METHOD AND APPARATUS FOR PROVIDING PRECISE FAULT TRACING IN A SUPERSCALAR MICROPROCESSOR | 05/12/98 |
| 6,374,370 | METHOD AND SYSTEM FOR FLEXBIBLE CONTORL OF BIST REGISTERS BASED UPON ON CHIP EVENTS | 04/16/02 |
| 5,630,052 | SYSTEM DEVELOPMENT AND DEBUG TOLLS FOR POWER MANAGEMENT FUNCTIONS IN A COMPUTER SYSTEM | 05/13/97 |
| 6,075,941 | MICROCOMPUTER | 06/13/00 |
| 5,325,512 | CIRCUIT EMULATOR | 06/28/94 |
| 6,094,730 | HARDWARE-ASSISTAED FIRMWARE TRACING METHOD AND APPARATUS | 07/25/00 |
| 6,829,727 | IN-CIRCUIT EMULATION OF SINGLE CHIP MICROCONTROLLERS | 12/07/04 |
| 5,663,900 | ELECTRONIC SIMULATION AND EMAULRION SYSTEM | 09/02/97 |
| 6,347,395 | METHOD AND ARRANGEMENT FOR RAPID SILICON PROTOTYPING | 02/12/02 |
| 6,009,270 | TRACE SYNCHRONIZATION IN A PROCESSOR | 12/28/99 |
| 6,185,522 | METHOD AND SYSTEM FOR EMULATING MICROCONTROLLERS | 02/06/01 |
| 6,223,144 | METHOD AND APPARATUS FOR EVALUATING SOFTWARE PROGRAMS FOR SEMICONDUCTOR CIRCUITS | 04/24/01 |
| 6,173,419 | FIELD PROGRAMMABLE GATE ARRAY FPGA EMULATOR FOR DEBUGGING SOFTWARE | 01/09/01 |
| 6,516,428 | ON-CHIP DEBUG SYSTEM | 02/04/03 |
| 6,581,191 | HARDWARE DEBUGGING IN A HARDWARE DESCRIPTION LANGUAGE | 06/17/03 |
| 5,630,102 | IN-CIRCUIT-EMULATION EVENT MANAGEMENT SYSTEM | 05/13/97 |
| 6,810,442 | MEMEORY MAPPING SYSTEM AND METHOD | 10/26/04 |
| 5,574,892 | USE OF BETWEEN-INSTRUCTION BREAKS TO IMPLEMENT COMPLEX IN-CIRCUIT EMULATION FATURES | 11/12/96 |
| 5,331,571 | TESTING AND EMULATION OF INTEGRATED CIRCUITS | 07/19/94 |
| 5,911,059 | METHOD AND APPARATUS FOR TESTING SOFTWARE | 06/08/99 |
| 5,572,665 | SEMICONDUCTOR INTEGRATED CIRCUIT FOR DEVELOPING A SYSTEM USING A MICROPROCESSOR | 11/05/96 |
| 5,127,103 | REAL-TIME TRACING OF DYNAMIC LOCAL DATA IN HIGH LEVEL LANGUAGES IN THE PRESENCE OF PROCESS CONTEXT SWITCHES | 06/30/92 |
| 6,618,854 | REMOTELY ACCESSIBLE INTEGRATED DEBUG ENVIRONMENT | 09/09/03 |

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| 5,748,875 | DIGITAL LOGIC SIMULATION/EMULATION SYSTEM | 05/05/98 |
| 6,202,044 | CONCURRENT HARDWARE-SOFTWARE CO-SIMULATION | 03/13/01 |
| 5,493,723 | PROCESSOR WITHIN-SYSTEM EMULATION CIRCUITRY WHICH USES THE SAME GROUP OF TERMINALS TO OUTPUT PROGRAM COUNTER BITS | 02/20/96 |

The Examiner's attention is respectfully directed to the following U.S. Published Patent Applications:

| <u>Pub. No.</u> | <u>Pub. Title</u> | <u>Pub. Date</u> |
|-----------------|---|------------------|
| 2002/0052729 | APPARATUS AND METHOD FOR VERIFYING A LOGIC FUNCTION OF A SEMICONDUCTOR CHIP | 05/02/02 |
| 2003/0149961 | APPARATUS, METHOD, AND PROGRAM FOR BREAKPOINT SETTING | 08/07/03 |
| 2003/0056071 | ADAPTABLE BOOT LOADER | 03/20/03 |
| 2002/0156885 | PROTOCOL EMULATOR | 10/24/02 |
| 2002/0116168 | METHOD AND SYSTEM FOR DESIGN VERIFICATION OF ELECTRONIC CIRCUITS | 08/22/02 |

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Respectfully submitted,

Date: 10/17/05

By: 
 Kevin A. Brown
 Reg. No. 56,303



Attorney Docket No.: CYPR-CD01208

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Patent Application

Inventor(s): Craig Nemecek

Application No.: 09/989,777

Group Art Unit:

Filed: 11/19/01

Examiner:

Title: SLEEP AND STALL IN AN IN-CIRCUIT EMULATION SYSTEM

Form 1449

U.S. Patent Documents

| Examiner Initial | No. | Patent No. | Date | Patentee | Class | Sub-class | Filing Date |
|------------------|-----|------------|----------|--------------------|-------|-----------|-------------|
| | A | 6,144,327 | 11/07/00 | Distinti et al. | 341 | 126 | 08/12/97 |
| | B | 5,202,687 | 04/13/93 | Distinti | 341 | 158 | 06/12/91 |
| | C | 6,016,554 | 01/18/00 | Skrovan et al. | 741 | 25 | 07/28/97 |
| | D | 5,978,584 | 11/02/99 | Nishibata et al. | 395 | 704 | 06/19/97 |
| | E | 6,356,862 | 03/12/02 | Bailey | 703 | 16 | 09/24/98 |
| | F | 6,058,263 | 05/02/00 | Voth | 395 | 500.46 | 06/03/96 |
| | G | 5,999,725 | 12/07/99 | Barbier et al. | 395 | 500.49 | 04/17/98 |
| | H | 6,289,300 | 09/11/01 | Brannick et al. | 703 | 28 | 02/06/98 |
| | I | 6,298,320 | 10/02/01 | Buckmaster et al | 703 | 28 | 02/17/98 |
| | J | 6,366,878 | 04/02/02 | Grunert | 703 | 28 | 09/28/98 |
| | K | 5,889,988 | 03/30/99 | Held | 395 | 673 | 11/08/96 |
| | L | 6,487,700 | 11/26/02 | Fukushima | 716 | 4 | 03/08/00 |
| | M | 5,559,996 | 09/24/96 | Fujioka | 395 | 500 | 01/11/94 |
| | N | 6,223,272 | 04/24/01 | Coehlo et al. | 712 | 1 | 07/15/98 |
| | O | 5,964,893 | 10/12/99 | Circello et al. | 714 | 39 | 08/30/95 |
| | P | 6,107,826 | 08/22/00 | Young et al. | 326 | 41 | 08/19/98 |
| | Q | 6,302,268 | 02/29/00 | Swoboda et al. | 714 | 30 | 02/04/92 |
| | R | 5,805,792 | 09/08/98 | Swoboda et al. | 395 | 183.04 | 03/21/97 |
| | S | 5,590,354 | 12/31/96 | Klapproth et al. | 395 | 800 | 07/28/94 |
| | T | 6,161,199 | 12/12/00 | Szeto et al. | 714 | 30 | 12/12/97 |
| | U | 6,564,179 | 05/13/03 | Belhaj | 703 | 26 | 07/26/99 |
| | V | 5,587,957 | 12/24/96 | Kowalczyk et al. | 365 | 230.03 | 09/29/95 |
| | W | 6,385,742 | 05/07/02 | Kirsh et al. | 714 | 39 | 03/05/99 |
| | X | 5,546,562 | 08/13/96 | Patel | 395 | 500 | 08/13/96 |
| | Y | 6,718,294 | 04/06/04 | Bortfeld | 703 | 20 | 05/16/00 |
| | Z | 5,371,878 | 12/06/94 | Coker | 395 | 500 | 09/09/93 |
| | AA | 5,321,828 | 06/14/94 | Phillips et al. | 395 | 500 | 06/07/91 |
| | BB | 5,752,013 | 05/12/98 | Christensen et al. | 395 | 568 | 06/30/93 |
| | CC | 6,374,370 | 04/16/02 | Bockhaus et al. | 714 | 39 | 10/30/98 |
| | DD | 5,630,052 | 05/13/97 | Shah | 395 | 183.14 | 10/18/96 |
| | EE | 6,075,941 | 06/13/00 | Itoh et al. | 395 | 704 | 01/22/98 |
| | FF | 5,325,512 | 06/28/94 | Takahashi | 395 | 500 | 07/12/93 |
| | GG | 6,094,730 | 07/25/00 | Lopez et al. | 714 | 28 | 10/27/97 |
| | HH | 6,829,727 | 12/07/04 | Pawloski | 714 | 28 | 01/12/01 |

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| | II | 5,663,900 | 09/02/97 | Bhandari et al. | 364 | 578 | 05/09/95 |
| | JJ | 6,347,395 | 02/12/02 | Payne et al. | 716 | 18 | 12/18/98 |
| | KK | 6,009,270 | 12/28/99 | Mann | 395 | 704 | 12/07/97 |
| | LL | 6,185,522 | 02/06/01 | Bakker | 703 | 28 | 05/18/98 |
| | MM | 6,223,144 | 04/24/01 | Barnett et al. | 703 | 22 | 03/24/98 |
| | NN | 6,173,419 | 01/09/01 | Barnett | 714 | 28 | 05/14/98 |
| | OO | 6,516,428 | 02/04/03 | Wenzel et al. | 714 | 28 | 01/22/99 |
| | PP | 6,581,191 | 06/17/03 | Schubert et al. | 716 | 4 | 11/28/00 |
| | QQ | 5,630,102 | 05/13/97 | Johnson et al. | 395 | 500 | 12/19/94 |
| | RR | 6,810,442 | 10/26/04 | Lin et al. | 710 | 22 | 09/12/01 |
| | SS | 5,574,892 | 11/12/96 | Christensen | 395 | 500 | 02/28/95 |
| | TT | 5,331,571 | 07/19/94 | Aronoff et al. | 364 | 490 | 07/22/92 |
| | UU | 5,911,059 | 06/08/99 | Profit, Jr. | 395 | 500 | 12/18/96 |
| | VV | 5,572,665 | 11/05/96 | Nakabayashi | 395 | 183.04 | 11/01/95 |
| | WW | 5,127,103 | 06/30/92 | Hill et al. | 395 | 575 | 11/16/90 |
| | XX | 6,618,854 | 09/09/03 | Mann | 717 | 124 | 02/18/97 |
| | YY | 5,748,875 | 05/05/98 | Tzori | 395 | 183.05 | 06/12/96 |
| | ZZ | 6,202,044 | 03/13/01 | Tzori | 703 | 28 | 06/12/98 |
| | AAA | 5,493,723 | 02/20/96 | Beck et al. | 395 | 500 | 10/27/94 |

U.S. Published Patent Application

| Examiner Initial | No. | Pub. No. | Pub. Date | Patentee | Class | Sub-class | Filing Date |
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| | BBB | 2002/0156885 | 10/24/02 | Thakkar | 709 | 224 | 04/23/01 |
| | CCC | 2002/0116168 | 08/22/02 | Kim | 703 | 28 | 11/15/99 |
| | DDD | 2003/0056071 | 03/20/03 | Triece et al. | 711 | 165 | 09/18/01 |
| | EEE | 2003/0149961 | 08/07/03 | Kawai et al. | 717 | 129 | 02/05/03 |
| | FFF | 2002/0052729 | 05/02/02 | Kyung et al. | 703 | 28 | 01/17/01 |

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| Examiner Initial | No. | Author, Title, Date, Place (e.g. Journal) of Publication |
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| | GGG | Dahl et al., "EMULATION OF THE SPARCLE MICROPROCESSOR WITH THE MIT VIRTUAL WIRES EMULATION SYSTEM"; 1994; IEEE; pages 14-22 |
| | HHH | Bauer et al.; "A RECONFIGURABLE LOGIC MACHINE FOR FAST EVENT-DRIVEN SIMULATION"; 1998; Design Automation Conference Proceedings; pages 668-671 |
| | III | Bursky; "FPGA COMBINES MULTIPLE INTERFACES AND LOGIC"; Electronic Design; Vol. 48 No. 20; pp 74-78 (Oct. 2, 2000) |
| | JJJ | Anonymous, "WARP NINE ENGINEERING – THE IEEE 1284 EXPERTS-F/PORT PRODUCT SHEET"; undated web page found at http://www.fapo.com/fport.htm |
| | KKK | Anonymous; "F/PORT: FAST PARALLELL PORT FOR THE PC: INSTALLATION MANUAL : Release 7.1," circa 1997, available for download from http://www.fapo.com/fport.htm |
| | LLL | Nam et al. ; "FAST DEVELOPMENT OF SOURCE-LEVEL DEBUGGING SYSTEM USING HARDWARE EMULATION"; IEEE 2000; pages 40-404 |
| | MMM | Huang et al.; "ICEBERG: AN EMBEDDED IN-CIRCUIT EMULATOR SYNTHESIZER FOR MICROCONTROLLERS"; ACM 1999; pages 580-585 |
| | NNN | Khan et al.; "FPGA ARCHITECTURES FOR ASIC HARDWARE EMULATORS"; IEEE 1993; pages 336-340 |
| | OOO | Oh et al.; "EMULATOR ENVIRONMENT BASED ON AN FPGA PROTOTYPING BOARD"; IEEE 21-23; June 2000; pages 72-77 |
| | PPP | Hong et al.; "AN FPGA-BASED HARDWARE EMULATOR FOR FAST FAULT EMULATION"; IEEE 1997; pages 345-348 |
| | QQQ | Ching et al.; "AN IN-CIRCUIT EMULATOR FOR TMS320C25"; IEEE 1994; pages 51-56 |
| | RRR | Pasternak; "IN-CIRCUIT-EMULATION IN ASIC ARCHITECTURE CORE DESIGNS"; IEEE 1989' pages P6-4.1-P6-4.4 |
| | SSS | Melear; "USING BACKROUND MODES FOR TESTING, DEBUGGING AND EMULATION OF MICROCONTROLLERS"; IEEE 1997; pages 90-97 |
| | TTT | Walters; "COMPUTER-AIDED PROTOTYPING FOR ASIC-BASED SYSTEMS"; 1991; IEEE Design & Test of Computers |
| | UUU | Anonymous; "JEEN™ JTAG EMBEDDED ICE ETHERNET INTERFACE"; August 1999; Embedded Performance, Inc.; 3 pages |
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| | WWW | "MICROSOFT FILES SUMMARY JUDGEMENT MOTIONS"; February 1999; Microsoft PressPass; retrieved on 5/20/05 from http://www.microsoft.com/presspass/press/1999/feb99/Feb99/Calderapr.asp ; pages 1-6 |
| | XXX | Anonymous; "USING DEBUG"; 1999; Prentice-Hall Publishing; pages 1-20 |
| | YYY | XEROX; MESA DEBUGGER DOCUMENTATION "; April 1979; XEROX Systems Development Department; Version 5.0; pages 1-30 |
| | ZZZ | Stallman et al.; "DEBUGGING WITH THR GNU SOURCE-LEVEL DEBUGGER"; January 1994; retrieved on May 2, 2005 from http://www.cs.utah.edu ; Stopping and Continuing" |
| Examiner | | Date Considered |

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.